

## 2005-2007 IT PLAN Summary - Agency Budget Request

### 00504 HIGHWAY PATROL

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2005B0100504

#### AGENCY IT PLAN CONTACT DATA

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#### AGENCY TECHNOLOGY GOALS AND OBJECTIVES

Goal 1: Provide the North Dakota Highway Patrol with modern IT tools and support.

Objectives:

- Provide state of the art law enforcement based applications
- Explorer new technologies and their potential NDHP uses, as they become available.
- Analyze business procedures and implement appropriate changes to improve efficiency.

Goal 2: The NDHP will provide training necessary to allow its employees to function as efficiently as possible.

Objectives:

- Develop and maintain a plan for training based on individual needs.
- Provide training as deemed necessary.
- Keep training current through state contract, in-service, and other appropriate methods.

Goal 3: Implement a more efficient wireless data solution for our patrol vehicles.

Objectives:

- Develop a detailed business case by outlining needs.
- Implement solution that satisfies both in coverage areas and out of coverage areas.
- Provide training and support to field personnel.



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N/A

|  |      |              |    |
|--|------|--------------|----|
| Number of Desktop Computers                        | 64   | Windows 98   | 5  |
| Number of Desktop Computers planned to be replaced | 30   | Wndows NT    | 0  |
| Aveage cost of Desktop Computer Replacements       | 1400 | Windows 2000 | 60 |
| Number of Laptop Computers                         | 141  | Windows XP   | 35 |
| Number of Laptop Computers Planned to be replaced  | 55   | Other        | 0  |
| Aveage cost of Laptop Computer Replacements        | 4500 |              |    |

Number of PC's by Region

|    |    |    |    |    |    |    |    |  |
|----|----|----|----|----|----|----|----|--|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  |  |
| 14 | 20 | 12 | 21 | 24 | 16 | 84 | 14 |  |

Agency Technology Activities

Our infrastructure consists of PC and Mobile Data Laptop replacement, regular phone and cell phones costs, software, and regular data processing charges.

### **PC/Mobile Data Laptop Replacement:**

The North Dakota Highway Patrol operates and maintains 64 networked PCs and 141 non-networked Mobile Data laptops. Our computers are scattered across the state in 46 separate locations. We have established a 4 year replacement cycle on all of our computers and laptops. During the 05-07 biennium, the HP will be replacing half of the pcs and 33% of the laptops. The average cost per PC is estimated at \$1400, this includes both office automation and power user machines. The average cost per laptop is \$4500, these laptops would fall into the custom category as they are ruggedized for use in extreme temperatures and environments. Touch screen functionality is also important for officer safety.

### **Phone/Cell Phone:**

Regular phone and long distance services are provided to us by ITD using the state meridian system. Our cell phone services are provided by Cellular One under state contract. Currently, cell phones are distributed to staff officers, district commanders, district sergeants, federal program personnel, executive security personnel, and on-call IT staff.

### **Software:**

The HP runs several types of specialized software packages that have yearly updates and/or maintenance agreements. One of the main packages is Accident Reconstruction. This software is used by our officers to diagram serious accidents. Each of our 8 district offices have at least one reconstructionist on staff.

### **Regular Data Processing:**

Regular data processing is defined as all monthly on-going charges billed to us by ITD, excluding special programming projects.

Networking and application hosting are the most significant costs. Each of our offices is equipped with a T-1 line for access to the network. ITD host several applications for the Highway Patrol.

1. Daily Activity System: This system provides a detailed record of each officer's activities. It tracks the amount of time worked during the shift, the number of specific activities done such as equipment weighed, overtime, leave time, and mileage. Several automated process are associated with this application: mileage is submitted for NDDOT for billing, and overtime and leave time are sent to Peoplesoft. Data entry for this system is done by the troopers via mobile data.
2. Case Management System: This system tracks citations, field contacts, and case/incidents. Access to this system by the troopers is done via mobile data. With the use of this system, we are able to have a completely electronic traffic stop. From May 1, 2003 - April 30, 2004 the Highway Patrol completed 74% of their citations online. This system also sends citations each day for the Supreme Court thus eliminating duplicate data entry.
3. E-Permits: This is a web-based system for the sale of Oversize/Overweight permits. We offer several permit types online. Since its debut in December 2002, we have taken in \$120570 in revenue.

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- 4. Web-citations: This system was designed for use by the States Attorney’s and the clerks of court to inquire on any citations done by the Highway Patrol.

# IT Capture Infrastructure Budget Details - Agency Budget Request

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Date: 11/29/2004

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Time: 3:56:02PM

|                       |  | Current<br>Appropriation | Budget<br>Request  | Optional<br>Adjustments | Request Plus<br>Optionals | Subsequent<br>Biennium |
|-----------------------|--|--------------------------|--------------------|-------------------------|---------------------------|------------------------|
| <b>70</b>             | <b>ADMINISTRATION</b>                      |                          |                    |                         |                           |                        |
|                       | <b>SALARIES, WAGES &amp; BENEFITS</b>      | <b>\$401,549</b>         | <b>\$497,092</b>   | <b>\$0</b>              | <b>\$497,092</b>          | <b>\$497,092</b>       |
| IT3002                | IT-DATA PROCESSING                         | \$40,000                 | \$45,000           | \$0                     | \$45,000                  | \$45,000               |
| IT3003                | IT TELEPHONE                               | \$18,000                 | \$18,000           | \$0                     | \$18,000                  | \$18,000               |
| IT3005                | IT SOFTWARE/SUPPLIES                       | \$3,000                  | \$3,000            | \$0                     | \$3,000                   | \$3,000                |
| IT3038                | IT EQUIPMENT UNDER \$5000                  | \$33,000                 | \$33,000           | \$0                     | \$33,000                  | \$33,000               |
|                       | <b>Total</b>                               | <b>\$495,549</b>         | <b>\$596,092</b>   | <b>\$0</b>              | <b>\$596,092</b>          | <b>\$596,092</b>       |
| <b>71</b>             | <b>FIELD OPERATIONS</b>                    |                          |                    |                         |                           |                        |
|                       | <b>SALARIES, WAGES &amp; BENEFITS</b>      | <b>\$0</b>               | <b>\$0</b>         | <b>\$0</b>              | <b>\$0</b>                | <b>\$0</b>             |
| IT3002                | IT-DATA PROCESSING                         | \$404,000                | \$451,295          | \$0                     | \$451,295                 | \$451,295              |
| IT3003                | IT TELEPHONE                               | \$140,000                | \$140,000          | \$0                     | \$140,000                 | \$140,000              |
| IT3005                | IT SOFTWARE/SUPPLIES                       | \$32,000                 | \$32,000           | \$0                     | \$32,000                  | \$32,000               |
| IT3038                | IT EQUIPMENT UNDER \$5000                  | \$280,000                | \$280,000          | \$0                     | \$280,000                 | \$280,000              |
|                       | <b>Total</b>                               | <b>\$856,000</b>         | <b>\$903,295</b>   | <b>\$0</b>              | <b>\$903,295</b>          | <b>\$903,295</b>       |
| <b>72</b>             | <b>LAW ENFORCEMENT TRAINING ACADEMY</b>    |                          |                    |                         |                           |                        |
| IT3002                | IT-DATA PROCESSING                         | \$12,000                 | \$14,000           | \$0                     | \$14,000                  | \$14,000               |
| IT3003                | IT TELEPHONE                               | \$6,000                  | \$6,000            | \$0                     | \$6,000                   | \$6,000                |
| IT3005                | IT SOFTWARE/SUPPLIES                       | \$1,000                  | \$1,000            | \$0                     | \$1,000                   | \$1,000                |
| IT3038                | IT EQUIPMENT UNDER \$5000                  | \$5,000                  | \$5,000            | \$0                     | \$5,000                   | \$5,000                |
|                       | <b>Total</b>                               | <b>\$24,000</b>          | <b>\$26,000</b>    | <b>\$0</b>              | <b>\$26,000</b>           | <b>\$26,000</b>        |
| <b>Funding Source</b> |  |                          |                    |                         |                           |                        |
|                       | <b>HIGHWAY TAX DISTRIBUTION FUND</b>       |                          | <b>\$172,865</b>   | <b>\$0</b>              | <b>\$172,865</b>          | <b>\$172,865</b>       |
|                       | <b>IT SPECIAL FUNDS</b>                    |                          | <b>\$266,835</b>   | <b>\$0</b>              | <b>\$266,835</b>          | <b>\$266,835</b>       |
|                       | <b>MTR CARRIER SAFETY ASSISTANCE PROGR</b> |                          | <b>\$8,000</b>     | <b>\$0</b>              | <b>\$8,000</b>            | <b>\$8,000</b>         |
|                       | <b>STATE GENERAL FUND</b>                  |                          | <b>\$1,077,687</b> | <b>\$0</b>              | <b>\$1,077,687</b>        | <b>\$1,077,687</b>     |
|                       |  |                          | <b>\$1,525,387</b> | <b>\$0</b>              | <b>\$1,525,387</b>        | <b>\$1,525,387</b>     |

# IT Capture Project Details - Agency Budget Request

Date: 11/30/2004

Time 7:40:42AM

00504 HIGHWAY PATROL

Version 2005B0100504

Project: Case Management System

Priority - 1

Application Replacement

Age of Current Application - 7

## Project Description

This project is the off-the-shelf purchase of a Case Management system(CMS) designed for law enforcement. The system would allow for seamless integration of data from the patrol cars to the main offices with the efficient use of bandwidth and current technologies. The system would allow the Highway Patrol to operate a paperless case system by integrating photos and other information into the system.

## Description of Business Need or Problem Driving the Project

State Radio Communications is requesting dollars to acquire Computer Aided Dispatch (CAD) in their agency. CAD uses computer technology to improve the management of 911 call handling and public safety dispatch. CAD, CMS, and field reporting systems work seamlessly over the mobile data network to provide troopers with detailed information to complete their stop. Also, more critical information is available while enroute to the scene of an emergency.

The Highway Patrol requires detail reporting of activities worked to help management pinpoint trouble locations. This information allows them to focus their efforts on enforcement in those areas. With a CAD system operational at State Radio we will be able to capture information that we have need been able to in the past.

## Description of how Project is Consistent with the Organization's Mission

The mission of the Highway Patrol is to serve and protect the citizens of the state of North Dakota. This project would give troopers more information to do their jobs and increase capabilities. In this era of heightened national security it is paramount that our troopers have critical information at their fingertips. Accuracy and timeliness of data is crucial in keeping the state of North Dakota safe and secure.

## Description of the Anticipated Benefits

The HP and State Radio Communications will be able to compile and disseminate more information rapidly. While increasing Real-Time, Accurate, Secure Information Flow to the CJIS Hub. This benefits all law enforcement agencies statewide by providing access to HP information. Provide additional system capacity for anticipated future growth of the quantity of information. This benefits both the Highway Patrol and the citizens of our state by anticipating future needs

## Description of the Impact of NOT Implementing the Project

If this project is not implemented, the Highway Patrol will continue using the existing system which has the following problems that we feel require improvement. The existing system does have some reporting capabilities, but these would need to be expanded to include data elements from our other oracle based systems. Presently, a cross-section of the data needs is fragmented between systems. This issue has not been addressed due to the high programming costs involved.

## Identify any Risks Associated with the Project

With any project there are unavoidable elements of risk and several risks have been identified for this project:

- Cost Overrun
- Loss of key personnel
- Deadlines not met

## IT Capture Project Details - Agency Budget Request

Date: 11/30/2004

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00504 HIGHWAY PATROL

Version 2005B0100504

Project: Case Management System

### Risks:

Cost Overrun: While this has a low potential of occurrence due to detailed scope planning and the submission of an RFP, the impact to the project would medium to high. To alleviate this risk, the project manager would be in constant communication with the vendor to keep it to a minimum. Also, any changes to the scope would have to be reviewed by the project sponsors.

Loss of key personnel: This risk also has a low occurrence rate, but the impact to the project would be medium. Because of the detailed project plan and communication within the project team the project manager has the ability to move tasks and review critical documents with the replacement.

Deadlines not met: The risk potential is set at low to medium with the impact medium. The project manager should be able to easily identify areas of concern and reassign staff to head off a significant delay. Establishing a flexible schedule of tasks is also very important.

### Description of Additional Cost, if Any, for the Project



## IT Capture Project Details - Agency Budget Request

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Project: Case Management System

N/A

Additional Costs for the project that are not included in IT Object Codes

Additional Costs -

Optional Project Costs

**Total Project Cost -****Total Project Cost + Optionals****Description of Non-Appropriated Funds -**

N/A

|                                    | <u>CURRENT</u><br><u>APPROPRIATIONS</u> | <u>BUDGET</u><br><u>REQUEST</u> | <u>OPTIONAL</u><br><u>ADJUSTMENT</u> | <u>REQUEST PLUS</u><br><u>OPTIONALS</u> | <u>SUBSEQUENT</u><br><u>BIENNIUM</u> |
|------------------------------------|---|---------------------------------|--------------------------------------|---|--------------------------------------|
| <b>IT3005</b> IT SOFTWARE/SUPPLIES | <b>\$0</b>                              | <b>\$0</b>                      | <b>\$200,000</b>                     | <b>\$200,000</b>                        | <b>\$0</b>                           |
| <b>Total</b>                       | <b>\$0</b>                              | <b>\$0</b>                      | <b>\$200,000</b>                     | <b>\$200,000</b>                        | <b>\$0</b>                           |
| <b>SPEC1</b> IT SPECIAL FUNDS      |   | <b>\$0</b>                      | <b>\$200,000</b>                     | <b>\$200,000</b>                        | <b>\$0</b>                           |
| <b>Total Funding:</b>              |   | <b>\$0</b>                      | <b>\$200,000</b>                     | <b>\$200,000</b>                        | <b>\$0</b>                           |

# IT Capture Project Details - Agency Budget Request

Date: 11/30/2004

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Version 2005B0100504

Project: Wireless Field Reporting

Priority - 1

New Initiative

## Project Description

This project is the off-the-shelf purchase of a wireless field reporting system designed use over our mobile data network. The system would allow for seamless entry of data from the patrol cars and the transfer of data to the centralized database with the efficient use of bandwidth. The system would allow for all types of field reporting and photos.

## Description of Business Need or Problem Driving the Project

Currently, the Highway Patrol runs mobile data throughout our fleet and have modified several oracle based programs to run through mobile data. However, the throughput of the system is 19.2kbs. Oracle is by nature bandwidth intensive making it difficult to send and receive data. As more and more agencies come on the MDC system, we have been experiencing trouble logging into our systems and also some data loss.

Our officers complete their reports at the roadside to increase response time and to act as a deterrent.

## Description of how Project is Consistent with the Organization's Mission

The mission of the Highway Patrol is to serve and protect the citizens of the state of North Dakota. This project would give troopers the ability to complete their reports in their car, keeping them visible on the roadway. In this era of heightened national security it is paramount that information generated by the trooper be available statewide within seconds of submission. Accuracy and timeliness of data is crucial in keeping the state of North Dakota safe and secure.

## Description of the Anticipated Benefits

The benefits of the project are as follows: Enables officers to work in proximity to the roadways instead of having to go to an office to complete their reports. This benefits not only the HP with increased efficiency, but also the citizens of North Dakota benefit by the increased visibility and shorter response times. The additional information provided by the technology will improve trooper safety by providing information to the field faster in emergency situations.

Data collection at the field level, allows our traffic stops to be paperless. The trooper can write both citations and warnings online, this allows the data to be available to the other troopers working the state immediately. It also eliminates the need for data entry personnel. With our current system, 74% of our citations were done online, with the addition of a more stable, expandable system that number can easily increase.

## Description of the Impact of NOT Implementing the Project

If this project is not implemented, our policy of writing reports at the roadside will have to be changed. It has become increasingly more difficult to get connected and stay connected to the database. Staffing levels will need to be increased and taking troopers off the road to do reports is inefficient, so data entry personnel will need to be hired to enter the data into the system.

# IT Capture Project Details - Agency Budget Request

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00504 HIGHWAY PATROL

Version 2005B0100504

Project: Wireless Field Reporting

## Identify any Risks Associated with the Project

With any project there are unavoidable elements of risk and several risks have been identified for this project:

Cost Overrun

Loss of key personnel

Deadlines not met

Risks:

Cost Overrun: While this has a low potential of occurrence due to detailed scope planning and the submission of an RFP, the impact to the project would medium to high. To alleviate this risk, the project manager would be in constant communication with the vendor to keep it to a minimum. Also, any changes to the scope would have to be reviewed by the project sponsors.

Loss of key personnel: This risk also has a low occurrence rate, but the impact to the project would be medium. Because of the detailed project plan and communication within the project team the project manager has the ability to move tasks and review critical documents with the replacement.

Deadlines not met: The risk potential is set at low to medium with the impact medium. The project manager should be able to easily identify areas of concern and reassign staff to head off a significant delay. Establishing a flexible schedule of tasks is also very important.

## Description of Additional Cost, if Any, for the Project

N/A

Additional Costs for the project that are not included in IT Object Codes

Additional Costs - \$0.00

Optional Project Costs \$0.00

**Total Project Cost -****Total Project Cost + Optionals**

## Description of Non-Appropriated Funds -

N/A

|               |                      | <u>CURRENT</u>        | <u>BUDGET</u>    | <u>OPTIONAL</u>   | <u>REQUEST PLUS</u> | <u>SUBSEQUENT</u> |
|---------------|----------------------|-----------------------|------------------|-------------------|---------------------|-------------------|
|               |                      | <u>APPROPRIATIONS</u> | <u>REQUEST</u>   | <u>ADJUSTMENT</u> | <u>OPTIONALS</u>    | <u>BIENNIUM</u>   |
| <b>IT3005</b> | IT SOFTWARE/SUPPLIES | <b>\$0</b>            | <b>\$200,000</b> | <b>\$0</b>        | <b>\$200,000</b>    | <b>\$200,000</b>  |
| <b>Total</b>  |                      | <b>\$0</b>            | <b>\$200,000</b> | <b>\$0</b>        | <b>\$200,000</b>    | <b>\$200,000</b>  |

# IT Capture Project Details - Agency Budget Request

Date: 11/30/2004

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00504 HIGHWAY PATROL

Version 2005B0100504

Project: Wireless Field Reporting

|                |                          |           |     |           |           |
|----------------|--------------------------|-----------|-----|-----------|-----------|
| 400            | HIGHWAY TAX DISTRIBUTION | \$200,000 | \$0 | \$200,000 | \$200,000 |
| Total Funding: |                          | \$200,000 | \$0 | \$200,000 | \$200,000 |